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XIII.—*On the Birds of Southern Afghanistan and Kelât*
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WHEN I was ordered to join the army proceeding to Southern Afghanistan in October 1878, my friend Mr. A. O. Hume placed an experienced bird-skinner at my disposal, with whose assistance I made as good a collection of the birds about Quetta and Kandahar as my somewhat onerous duties permitted. In the autumn of 1879, the evacuation of Kandahar appearing imminent, I sent the skinner and the collection to Mr. Hume at Simla. He returned me a rough list of them, but it did not find its way into print. A year or two previously, Dr. Duke, Residency Surgeon at Quetta, had sent Mr. Hume a few skins obtained in Northern Baluchistan, and Mr. Hume himself had made a large collection on the coast of the same country. With these materials Mr. Hume had designed to publish in 'Stray Feathers' as complete a catalogue as possible of the birds of Baluchistan; but that useful periodical had lived its life before he had time to carry out his purpose.

Events, as will be remembered, prevented the evacuation of Kandahar in 1879; I remained with the army of occupation, and continued to collect and take notes, having taught

an Afghan servant to skin tolerably well. Most of my specimens I transmitted to Mr. Hume from time to time, and they are no doubt in his collection; but several interesting skins, all my mammals and reptiles, and all my notes were lost with our baggage after the defeat at Maiwand in July 1880. A few months later, Colonel Swinhoe arrived in Kandahar and commenced collecting vigorously. I gave him what assistance I could in the way of information, and he later on obtained a list of Dr. Duke's birds. The result was a paper on the "Birds of Southern Afghanistan" published in 'The Ibis' for 1882. The title is somewhat misleading, as his list of 199 species includes all the birds he shot on the road from the plains of Sind to Quetta, of which the following do not extend to anything that can be fairly called Southern Afghanistan, viz.: *Carine brama*, *Coracias indicus*, *Chatarrhæa caudata*, *Pterocles senegallus*, and *Ortygornis pondicerianus*. Of the remaining 194 species, twelve are given on my authority, and twelve on that of Dr. Duke.

Mr. Barnes, of the Bombay Army, was stationed at Chaman, at the foot of the Khwaja Amran hills in 1880, and published some interesting notes on the nesting of several species in vol. ix. of 'Stray Feathers,' and later on a list of birds observed and procured. Mr. Murray, of Kurrachee, paid a visit to Chaman about the same time and sent several specimens to Mr. Hume for identification. Till the army evacuated Kandahar in April 1881, I had no time for collecting; but being detained at Quetta till November I picked up a few specimens, and on leaving for England sent most of them to Mr. Hume, who, however, did not find time to identify them before his collection was sent to the British Museum. Some specimens obtained by my collector after I left were kindly identified for me by Mr. Blanford.

As I have already mentioned, it was Mr. Hume's intention to publish in 'Stray Feathers' a list of the birds of the geographical province of Baluchistan, that is, from Quetta southwards to the sea, and from Sind on the east to Persia proper on the west. To this end he compiled a catalogue from the material enumerated above (omitting of course

Col. Swinhoe's list and my late collection), from Mr. Blanford's 'Eastern Persia,' and from his own observations on the coast. This catalogue, with all other notes and letters on the subject, he has kindly placed at my disposal, with the recommendation that I should take up the work where he had left it off and compile as complete a list as possible of the birds of Baluchistan. This, however, I have not ventured to do. The ground covered could hardly be called a single province politically or geographically. It should be remembered that Baluchistan is a vague expression of political geography, unknown to the people themselves, and describes no definite physical region. The western half of Baluchistan has long been included in Persia, and nothing has lately been added to the list of its fauna made by Mr. Blanford in 1871-2. From Quetta on the south to Kandahar on the north the avifauna has now been pretty well worked out; but the majority of the specimens were obtained in the neighbourhood of Kandahar, which is certainly not in Baluchistan, while Quetta itself is an Afghan district, though ruled by the Khan of Kelát. Finally, the valleys of Baluchistan proper between the west and the highlands of Kelát are as yet unexplored as regards their fauna. Under these circumstances I have thought it better to confine my list to the parts I have myself collected in, namely, Southern Afghanistan and the highlands of Kelát.

This forms a distinct and well-defined province known from time immemorial in Western India and by its own inhabitants as *Khurasán* (land of the sun), but must not be confounded with the Persian province of the same name. On the east and south its limits are roughly those of the date-palm, say from 3500 to 4000 feet in elevation, and are marked on the east by our stations of Harnai and Mach on the Quetta railway, and on the south by the villages of Kozdar and Nal in about latitude $27^{\circ} 40'$. On the north and west the limits of *Khurasán* are hardly so well defined, but the country over which our collections have been made extends to Kelát-i-Ghilzai on the N.E. and to the Helmund at Girishk on the west. Throughout this district, which

comprises the Afghan province of Kandahar, the British provinces of Pishin and Thal Chotiali, with those of Quetta and Kelát proper, the flora is distinctly that of the temperate zone, the Indian monsoon is little or not at all felt, and the main rainfall is in winter. In the lower country to the east and south the flora is subtropical and the climate that of Sind. In configuration this Baluch or Afghan Khurasán is a plateau, of which the ridge, averaging 6000 feet above the sea, runs about north and south along the 67th meridian. It is everywhere traversed by ranges of rocky hills rising in some instances to 11,000 feet above the sea. These higher hills are well clad with dwarf trees and shrubs, but the lower hills and the plains are very bare. As may be supposed, the birds are not very numerous, and my list numbers 235 species only.

Of these, 205 are included in the birds of Persia enumerated by Mr. Blanford, or are well known to inhabit Western Asia. The exceptions are the following:—

<i>Pseudogyps bengalensis.</i>	<i>Hypocolius ampelinus.</i>
<i>Falco jugger.</i>	<i>Buchanga albirictus.</i>
<i>Astur brevipes.</i>	<i>Muscipeta paradisi.</i>
<i>Milyus govinda.</i>	<i>Myiophoneus temminckii.</i>
<i>Elanus cæruleus.</i>	<i>Merula unicolor.</i>
<i>Scops pennatus.</i>	<i>Oriolus kundoo.</i>
— <i>brucei.</i>	<i>Amadina malabarica.</i>
<i>Hirundo filifera.</i>	<i>Emberiza stewarti.</i>
<i>Caprimulgus uniwini</i> .*	— <i>schœniclus.</i>
— <i>mahrattensis.</i>	<i>Euspiza luteola.</i>
<i>Alcedo bengalensis.</i>	<i>Carduelis caniceps.</i>
<i>Picus sindiensis</i> (<i>vel hima-</i>	<i>Alauda gulgula.</i>
<i>layensis</i>).	<i>Ægialitis cunonica.</i>
<i>Gecinus gorii.</i>	<i>Porphyrio poliocephalus.</i>
<i>Lanius erythronotus.</i>	<i>Ardea bubulcus.</i>
— <i>phœnicuroides.</i>	

Of these the majority are stragglers from the neighbouring plains of India or winter emigrants from Central Asia to India. One (*Gecinus gorii*) is peculiar to the province, another (*Hypocolius ampelinus*) is a wanderer from Africa,

* [Mr. Blanford informs me that some grey specimens from S.E. Persia, referred by him ('Eastern Persia,' ii. p. 127) to *C. europæus*, were, he now believes, identical with *C. uniwini*.—ED.]

while *Muscipeta paradisi*, *Carduelis caniceps*, *Scops pennatus*, *Myiophoneus temmincki*, and *Merula unicolor* probably extend from the Himalayas along the Suleiman mountains into Southern Afghanistan.

I now give a general list of the species observed and some remarks upon each of them.

1. VULTUR MONACHUS, Linn.

Seen occasionally, generally in the winter, all over the country from the Bolan to Kandahar. An officer who lived with me in that city in 1880-1 had a young bird which became very tame. A cage made for it when we were evacuating the country proved too small, and it had to be left behind.

2. GYPS FULVUS (Gm.).

Colonel Swinhoe puts the Tawny Vulture of Afghanistan under *G. fulvescens*, but he does not seem to have procured a specimen. The following dimensions are taken from a bird just shot at Kelât-i-Ghilzai:—weight 16 lbs.; length 45 inches; expanse 8 feet; bill at gape 3 inches, depth $1\frac{3}{8}$ inch; legs plumbeous; six scutes on the outer toe. Can this have been *G. indicus*, with Jerdon's description of which it seems to agree? Probably not, as the latter has not, I believe, been recorded from Western India. It differs from the description of *G. fulvus* in Jerdon in the more slender bill, and in the greater number of scutes on the outer toe, points which Hume does not mention. However, as the type of *G. fulvus* was procured on the Iranian plateau, it does not seem safe to separate the Vulture of Afghanistan without more information than we possess at present.

The Tawny Vulture is common in the winter only, probably betaking itself in summer to the higher hills of Central Afghanistan, as I have noticed it occasionally about Ziarat (8000 feet) in the hot weather.

3. PSEUDOGYPS BENGALENSIS (Gm.).

During the first campaign in Afghanistan (1878-9) numbers of this bird accompanied the army on its march, finding ample sustenance in the camels that died at every halting-place and strewed the road from Sukkur to Kan-

dahar. In the spring of 1879 they disappeared, and I did not notice them again. The railway was laid across the desert from Sukkur to Sibi in the winter of 1879-80, and no movement of troops upwards took place till it was completed. This, by depriving the Vultures of the food they had found along the first half of the road the year before, may have deterred them from repeating their journey to Kandahar. Colonel Swinhoe mentions seeing another Vulture, which he did not identify, at Kandahar in March and April 1881, and this may have been *P. bengalensis*; but, as I have said, I did not notice the species after 1879. Under these circumstances it is perhaps hardly correct to include it among the birds of Southern Afghanistan.

4. NEOPHRON PERCNOPTERUS (Linn.).

At Mr. Hume's suggestion I shot several of these Vultures at Kandahar to ascertain whether *N. ginginianus* found its way above the passes, but all were *N. percnopterus*.

The Egyptian Vulture is common all over our province at certain seasons. A few pairs remained in the neighbourhood of Kandahar throughout the summer, but the majority of those that swarmed about the camp in late winter and early spring disappeared in April and did not reappear till July or August. At Kelát-i-Ghilzai in October there were none, and by the end of the same month they had all left Kandahar, not returning till the end of February or the beginning of March.

5. GYPAETUS BARBATUS (Linn.).

Lammergeyers are found everywhere throughout the province and by no means require lofty mountains. A pair or two bred in the isolated rocky hills which rise fifteen hundred feet or so above the Kandahar plain. A nestling was brought to me in April 1879 and I kept it for four months, when I gave it to an officer returning to England, who promised to take it to the Zoological Society's Gardens; unfortunately it died on the road. It was a sulky stupid bird, and when not asleep kept up a continual moaning cry. It had a peculiar tippet of light grey feathers, centred dark, which I

do not remember noticing in young birds in Abyssinia, the only place where I have seen them in this early stage. In the Bolan pass Lammergeyers are particularly numerous. The wing of one I found lying dead measured $30\frac{1}{2}$ inches.

6. *FALCO PEREGRINUS*, Tunst.

Rare. I have only procured one specimen, a male, nearly pure white below. It was shot by my collector in a rocky pass near Quetta where I had seen it some days before, hunting chicken Partridges.

7. *FALCO JUGGER*, Gray.

Not very uncommon. Dr. Duke obtained it at Nal, and I have twice shot it in the Residency Garden at Quetta.

8. *FALCO BABYLONICUS* (sive *barbarus*?).

One or other of these species is the commonest Falcon of our province. Dr. Duke sent a specimen, shot near Kelât, unsexed, to Mr. Hume, which the latter noted as *F. babylonicus*. Of three females which I obtained in Kandahar, two he considered to be *F. barbarus* and one *F. babylonicus*. Last year I procured two males in the Residency Garden at Quetta, which, though rather large for *F. barbarus*, were smaller than any *F. babylonicus* of which I could find record. In April last I showed them to Mr. Hume, who told me that he now doubted whether true *F. barbarus* had ever been found in India at all, and that Mr. Gurney agreed with him that *F. babylonicus* was only the eastern form of the smaller *F. barbarus* of Europe and North Africa. The Kandahar specimens are in the Hume collection, and I recently sent one from Quetta to the British Museum*.

9. *FALCO ÆSALON*, Tunst.

Common. One of the first birds I shot in Pishin in 1878. Both Col. Swinhoe and I obtained specimens in Kandahar.

10. *TINNUNCULUS ALAUDARIUS* (Gm.).

The Kestrel is naturally common, but most if not all leave both Kandahar and Quetta in the hot weather. Mr. Barnes found it breeding in the Khwaja Amran range. I believe that I have also seen the Lesser Kestrel, *Erythropus naumanni*,

* [See Col. Butler's letter on this subject, above, p. 135.—Ed.]

which is very common in Southern Persia and in Kashmir, but I have never shot it.

11. *MICRONISUS BADIUS* (Gm.).

Procured by Dr. Duke at Kozdar and in Kelát, and by Colonel Swinhoe at Kandahar. I have frequently seen it at Quetta in spring and autumn.

12. *ACCIPITER NISUS* (Linn.).

Common all over the province in spring and autumn.

13. *ACCIPITER BREVIPES*, Severtzov.

Two out of seven Sparrow-Hawks obtained by a collector whom I left at Quetta were identified by Mr. Blanford as belonging to this Central Asian species. Of the others two were *A. nisus*, and the remaining three *Micronisus badius*.

Mr. Barnes (Str. F. ix. p. 451) mentions that *Accipiter virgatus* was obtained by Mr. Murray at Chaman, but he does not mention having himself seen it. *A. virgatus* is not recorded by Mr. Murray from Sind, and is, I believe, essentially a forest bird. Neither Col. Swinhoe nor myself obtained it, nor has it been found in Persia. Under these circumstances I venture to doubt its occurrence at Chaman.

14. *AQUILA IMPERIALIS* (Bechst.).

Large Eagles are not uncommon throughout the province. Two specimens obtained by Col. Swinhoe at Kandahar were identified in England as *A. imperialis*. Mr. Hume believes that he saw *A. chrysaetus* on the Mekran coast, and I am inclined to think that it also occurs about Kandahar.

15. *AQUILA CLANGA*, Pallas.

Mr. Hume identified a Spotted Eagle which I obtained in Kandahar as *A. clanga*.

16. *AQUILA PENNATA* (Gm.).

Mr. Hume obtained a specimen from Nal in 1877, and I shot one at Quetta last year. It is not uncommon about the latter place, but I did not observe it at Kandahar.

17. *CIRCAETUS GALLICUS* (Gm.).

I have never been able to procure a specimen, but an

Eagle which I put down to this species is not uncommon in the province. I have frequently noticed its habit, mentioned by Jerdon, of hovering like a Kestrel.

18. *BUTEO FEROX* (S. G. Gmelin).

As in Persia, the commonest bird of prey in the country, except during summer, when it is not seen. It probably breeds in the high mountains of Central and Northern Afghanistan.

19. *BUTASTUR TEESA* (Frankl.).

Neither Colonel Swinhoe nor I obtained the White-eyed Buzzard at Kandahar, but I got a single specimen in the summer of 1887 in Quetta, and found it breeding at Bagh-wána (100 miles south of Kelát and 4500 feet above the sea) in 1886.

20. *CIRCUS MACRURUS*, S. G. Gm.

Very common in spring and autumn, rare in winter, and not seen at all in summer. *Circus cyaneus* ought to be found, but it has not been identified. A specimen shot in the Khojak in 1881 I see marked *C. cyaneus* in my note-book, but this with many other specimens obtained that year is in Mr. Hume's collection and still unidentified.

21. *CIRCUS CINERACEUS* (Mont.).

Mr. Blanford identified a specimen from Quetta as Montagu's Harrier.

22. *CIRCUS ÆRUGINOSUS* (Linn.).

The Marsh Harrier is common in winter in suitable localities.

23. *MILVUS GOVINDA*, Sykes.

On our march to Kandahar numbers of Kites accompanied the army, mostly of this species. They left early, about the end of January, while the next species (*M. migrans*) remained till April, when they again disappeared till October, shortly after which *M. govinda* again arrived.

24. *MILVUS MIGRANS*, Bodd.

The Common Kite of the country. Mr. Barnes found it breeding in the Khojak in March and April.

25. *ELANUS CÆRULEUS* (Desf.).

I shot a male at Baghwāna in August 1886. Length of wing $10\frac{1}{4}$ inches.

26. *ASIO ACCIPITRINUS* (Pallas).

I shot a Short-eared Owl at Gatai on our march back from Kandahar in April 1881. The specimen is in the Hume Collection. I had previously seen three in a garden near Kandahar. It is doubtless a bird of passage only in our province.

27. *ASIO OTUS* (Linn.).

I shot a Long-eared Owl amongst the ruins of Old Kandahar, where Hutton notices that he found both it and the last-named species.

28. *BUBO IGNAVUS* (Forst.) ?

Which of the larger species of Eagle-Owls is found in our province I do not pretend to say. Three specimens have been obtained, one by Dr. Duke at Mastung in 1877, one by myself in Kandahar, and a third in Quetta. The first two are in the Hume Collection, the third I have recently sent to the British Museum.

29. *SCOPS PENNATUS* (Hodgson).

Col. Swinhoe, probably on Dr. Scully's authority, ascribes a Scops Owl which he procured in Kandahar to this species.

30. *SCOPS BRUCHI*, Hume.

Two specimens sent from Chaman to Mr. Hume, probably by Mr. Murray, are referred by him to this species. Mr. Barnes notes that they are common and breed there.

31. *SCOPS GIU* (Scop.).

Mr. Hume identified the only Scops Owl I sent him from Kandahar as *S. giu*. Later on he procured two more specimens from the Khwaja Amran hills, sent to him, I believe, by Mr. Murray. Mr. Barnes notes (S. F. vii. p. 452) that Mr. Murray obtained *Scops bakkamæna* (Penn.), but this seems hardly likely. Moreover, Mr. Murray sent two specimens of a *Scops*, and what he calls a *Glaucidium*, to Mr.

Hume for identification. These seem to have turned out to be the two *S. brucii* mentioned above and *S. giu*.

The Scops Owls are very common in favourable localities, keeping in summer to the juniper-forests of the mountains and dispersing over the country in winter. It is curious that the only two specimens obtained in Kandahar were shot one on the 11th April, 1879, and the second by Col. Swinhoe on the 12th April, 1881. They were probably on their way to the highlands of Central Afghanistan.

32. *HIRUNDO RUSTICA*, Linn.

First seen in Kandahar in 1879 on the 7th February. Disappeared entirely before the end of September, very few, indeed, remaining after the middle of August. Col. Swinhoe notes that he saw the first Swallow in 1881 on the 29th January. In Quetta they are later in appearing.

33. *HIRUNDO FILIFERA*, Steph.

Somewhat to my surprise I found this bird on several occasions in the Arghandab valley, and on one occasion near Kelát-i-Ghilzai, 5000 feet above the sea. It was not common, and I observed it nowhere else. Mr. Murray notices its occurrence at Quetta, but I have not seen it there.

34. *HIRUNDO DAURICA* (?).

In 1881 I saw a small flock of Red-rumped Swallows near Kach, but failed to procure a specimen. Which of the many forms of *H. daurica* they belonged to I cannot therefore say.

35. *COTILE RIPARIA* (Linn.).

Rare. Procured by Col. Swinhoe in Kandahar.

36. *COTILE RUPESTRIS* (Scop.).

Rock Martins are not common in the province. A specimen sent to Mr. Hume in 1881-82 remains unidentified in his collection. A bird which I shot last autumn at the head of the Pishin valley, about 6000 feet above the sea, appeared to me to be *Cotile rupestris*.

37. *CYPSELUS MELBA* (Linn.).

I obtained a single specimen of this Swift in Kandahar, the only one I saw there. I was waiting for a favourable

shot at a Common Snipe, of which swarms were flying overhead, when the big Swift passed and a lucky shot brought him down. I have since noticed Alpine Swifts in the cliffs of the mountains east of Quetta.

38. *CYPSELUS APUS* (Linn.).

The Common Swift, which swarms all over our province, was ascribed by Mr. Hume to *C. pekinensis* (Swinhoe) ; but I could see no difference between it and the *C. apus* of Persia, so I brought a few specimens to England with me in 1882. They were carefully compared with European and other Asiatic examples by Mr. Seebohm, who concluded that they were not separable from European specimens, and that the so-called *C. pekinensis* was not a good species.

39. *CYPSELUS AFFINIS*, J. E. Gr.

Found in small colonies here and there, but nowhere common. A few pairs breed in the Beba-Wali rocks on the Arghandab near Kandahar; and in the summer at Quetta I have noticed this Swift drinking at a pond in the Residency grounds.

40. *CAPRIMULGUS UNWINI*, Hume.

Common everywhere in suitable localities. I took three specimens to England in 1882. They were compared with *C. europæus* by Mr. Seebohm, who writes of them, "a shade paler than our bird, and may possibly be subspecifically separable from it."

41. *CAPRIMULGUS MAHRATTENSIS*, Sykes (?).

On the Helmund river near Girishk in 1880, a few days before the unlucky battle of Maiwand, I shot a Goatsucker which certainly did not belong to the last species. The lower parts were pale fulvous, wholly unspotted on the abdomen and vent. The specimen was lost with my baggage after our defeat. I think it was larger, not smaller than the Common Nightjar, but I may have been mistaken. If so, it was probably referable to *C. mahrattensis*, which Horsfield says is found in Afghanistan.

42. *MEROPS VIRIDIS*, Linn.

Found up to 4000 feet in the valleys of Baluchistan, but not in Afghanistan.

43. *MEROPS PERSICUS*, Pall.

Common all over the province in summer.

44. *MEROPS APIASTER*, Linn.

Arrives in Quetta and Kandahar before the last. Swinhoe noticed them at the latter place on the 14th April.

45. *CORACIAS GARRULA*, Linn.

A common summer visitant, arriving in April. Colonel Swinhoe says that *C. indica* has been observed at Quetta, but does not say by whom, and I doubt its occurrence above 1500 or 2000 feet.

46. *HALCYON SMYRNENSIS* (Linn.).

A rare straggler into our province up the valleys of Baluchistan, but commoner lower down. In Persia I have seen it as high as 6500 feet, but here not above 4000.

47. *ALCEDO BENGALENSIS*, Gm.

Mr. Hume ascribes a Kingfisher shot by Dr. Duke at Quetta in November to this species, but neither Col. Swinhoe nor I obtained it. Mr. Murray says it is found in S. Afghanistan, but I doubt it.

48. *ALCEDO ISPIDA*, Linn.

Common in favourable localities all over the province.

49. *CERYLE RUDIS* (Linn.).

Dr. Duke shot a specimen at Quetta in November, and I have noticed it occasionally both at Quetta and Kandahar, but it is very rare.

50. *PICUS SCINDIANUS* (Gould).

A pied Woodpecker is not uncommon in the Kluwaja Amran and in the sparsely wooded hills to the north and east of Quetta. A specimen was obtained in the former locality by Col. Swinhoe, and ascribed by him to this species. Mr. Barnes and Mr. Murray also state that those they "found breeding about the Khojak were *P. scindianus*, which is

certainly found in the tamarisk-jungles about Nal (4000 feet) and in other suitable localities up to that altitude. But it is not found in Quetta, Kelát, or Pishin, and I ascribed the specimens I obtained in the Khwaja Amran to *P. himalayanus*. Unfortunately they were not compared and identified by Mr. Hume. In page 37 of 'Contributions to Indian Ornithology,' Mr. Hume remarks that the Kashmir specimens of *P. himalayanus* look at first sight something like a connecting-link between that species and *P. scindianus*. It appears to be so in size, for *P. himalayanus* from the Eastern Himalayas is said by Jerdon to be 10 inches in length; *P. scindianus* is from 8·5 to 8·75, while Hume gives 9·0 as the length of a fine female *P. humei* from Kashmir. Comparing my specimens from the Khwaja Amran with the plate of *P. scindianus* in 'Contributions to Indian Ornithology,' I had little doubt as to their belonging to the Northern species, and I am still inclined to think I was correct.

Picus himalayanus, a mountain form, was found by Lieut. Wardlaw-Ramsay in the Kurrum valley, and it seems more likely that it should extend southwards along the mountains for a couple of hundred miles than that *P. scindianus*, which is not elsewhere a mountain form, should leap the same distance northwards and take to dwelling in steep hills sparsely clad with small trees and shrubs, instead of the dense tamarisk-jungle in which it delights elsewhere. In the Hume Collection there is a specimen of our pied Woodpecker from Nal, and three procured by me from the Khwaja Amran. Perhaps some ornithologist interested in the *Picidæ* may think it worth while to hunt them up and settle the point.

51. *GEVINUS GORII* (Hargitt).

The Green Woodpecker of South Afghanistan has been recently separated from *G. squamatus* by Mr. Hargitt (Ibis, 1888, p. 159). The type specimen was shot on the lower Helmund by Captain Gore in 1884, but a female had previously been obtained by Dr. Duke at Quetta in 1877. I have seen it on the Khwaja Amran hills, and, I believe, in the juniper-forests of Ziarat. It is rare.

52. *IYNX TORQUILLA*, Linn.

Not very uncommon. I got two specimens at Kandahar, and Col. Swinhoe one there and one at Quetta, all in the spring.

53. *IYNX INDICA*.

This species is said by Jerdon to be found in Afghanistan and Tibet, but the former locality is probably incorrect.

54. *CUCULUS CANORUS*, Linn.

First noticed by Lieut. Barnes at Chaman on the 1st April. It breeds on the Khwaja Amran and in the Ziarat hills, laying its eggs, I suspect, in Magpies' nests.

55. *ARACHNECTHRA ASIATICA* (Lath.).

Just comes into our province on the extreme south, being common in the southern part of the Kelát province up to 4000 feet.

56. *TICHODROMA MURARIA* (Linn.).

Very common all over the province in suitable localities in winter, but goes further north to breed. It is a tame and familiar bird, and may frequently be seen catching insects on the ramparts of Kandahar. The sun-dried brick walls of all buildings in South Afghanistan seem to have a great attraction for it, and I have more than once seen it flitting about my half-open window, like a great butterfly.

57. *SITTA SYRIACA*, Ehr.

Common everywhere in suitable localities. I found its nest in a hole in the wall of a small mausoleum built among rocks on the river Arghandab, in April.

58. *UPUPA EPOPS*, Linn.

Common everywhere.

59. *LANIUS LAHTORA*, Sykes.

Not very common, except in the lower country south of Kelát, where it was found plentiful by Dr. Duke. I did not notice it at Kandahar, but obtained a specimen near Kelát-i-Ghilzai.

60. *LANIUS MINOR*, Gm.

I did not see this bird, but Colonel Swinhoe obtained a specimen at Kandahar. I procured it in Persia, but it is rare there also.

61. *LANIUS ERYTHRONOTUS*, Vig.

The commonest Shrike in the country, being found in every garden. It is very bold and savage. A pair that bred close to my house in the Kandahar cantonment killed, one after the other, six Goldfinches I had in a cage, the two alighting on the cage together and striking at the frightened birds with beak and claw.

62. *LANIUS VITTATUS*, Valenc.

Rather rare about Kandahar and Quetta, commoner south of Kelát.

63. *LANIUS ISABELLINUS*, Hempr. et Ehr.

Common all over the province.

64. *LANIUS PHENICUROIDES*, Severtzoff.

Colonel Swinhoe obtained two specimens at Kandahar.

65. *HYPOCOLIUS AMPELINUS*, Bp.

In 'Stray Feathers' (v. p. 349) Mr. Hume has described a bird of this species obtained by Dr. Duke at Nal in April 1877. It has not since been procured in our province.

66. *BUCHANGA ALBIRICTUS* (Hodgs.).

Not uncommon about Quetta and the plateau of Baluchistan generally, but never seen at Kandahar. A single specimen has, however, been obtained by Lieut. Barnes at Chaman. Leaves Quetta, probably to breed, in May or June.

67. *MUSCIPETA PARADISI* (Linn.).

Colonel Swinhoe obtained two specimens in Kandahar, but I did not see the bird there. It is not very uncommon on the Khwaja Amran and other wooded hills, but has not been found in Quetta or in the country to the south. It may be inferred that it is a straggler from the north. Lieut. Wardlaw-Ramsay found it very common in the Kurum valley.

68. *MUSCICAPA GRISOLA*, Linn.

Common during the spring and autumn migrations. I found it very numerous on the Khwaja Amran in September.

69. *ERYTHROSTERNA PARVA* (Bechst.).

Common everywhere in suitable localities.

70. *MYIOPHONEUS TEMMINCKI* (Vig.).

I obtained a single specimen of this bird in March 1879, Col. Swinhoe got a second, and we saw it on one or two other occasions. It has not been procured further south or in Sind, and must therefore be a straggler from the north.

71. *MONTICOLA CYANUS* (Linn.).

Common all over the province in the colder weather, but less so in summer, for, though a few pairs breed, the majority, no doubt, go to the higher mountains of Central Afghanistan for that purpose. Mr. Seebohm remarks of two specimens shot in September 1881 on the Khwaja Amran, that they are thorough-bred, without any admixture of *M. solitarius*.

72. *MONTICOLA SAXATILIS* (Linn.).

A single specimen was sent to Mr. Hume from Quetta in 1876, and my last batch of skins to him contained a good series. Neither Colonel Swinhoe nor I obtained it in Kandahar, and Mr. Barnes did not procure it at Chaman, though I found it abundant on the hills above that place in September 1881. I got one specimen in the Amadun valley (6500 feet) in June, so that it must breed in our province. Young birds swarm about Quetta in the autumn. I used to kill three or four every morning last year to feed a couple of young foxes. They disappear in the winter, and must, I suppose, spend it in Southern Baluchistan, though Blanford and I did not obtain the bird in our journey through that country in the spring of 1872 till we reached the highlands.

73. *MERULA MAXIMA*, Seebohm.

Common about Kandahar, but does not extend further south.

The wing in two specimens, one male and one female, $5\frac{1}{4}$ inches, and in a second female 5. These correspond exactly

with those noted by Mr. Blanford ('Eastern Persia,' ii. p. 158). This large Eastern form of the common Blackbird thus extends over the whole Iranian plateau.

74. *MERULA UNICOLOR* (Tick.).

A specimen obtained by my collector at Quetta in 1882 was identified as this Thrush by Mr. Blanford. It must be rare, as I did not observe it before.

75. *TURDUS ATRIGULARIS*, Temm.

Very common in winter at Kandahar in some years, and in others hardly seen. Col. Swinhoe failed to obtain it in the winter of 1880-81, while the year before it was swarming in every orchard. It should be noticed that the winter was not a cold one, the only remarkable thing about it being that the rain was unusually late and scanty, not falling till February. Mr. Blanford must have misunderstood me ('Eastern Persia,' ii. p. 159) as to the non-occurrence of this bird in Persia. I have seen it frequently in winter in gardens about Ispahan, though not further south.

76. *TURDUS VISCIVORUS*, Linn.

Common in winter in the higher hills, and occasionally straggles to Quetta, but was not seen about Kandahar.

77. *CHATAURRHEA HUTTONI* (Blyth).

Found everywhere in the province in favourable localities, but nowhere very common. About Kandahar, as in Persia, it is a garden-bird. In the tamarisk-jungle of the Helmund it was abundant.

78. *OTOCOMPSA LEUCOTIS* (Gould).

Common everywhere up to 6000 feet or thereabouts.

79. *ORIOLES KUNDUO*, Sykes.

Common in suitable localities, which, however, are not many, about Kandahar; it is abundant in the extensive orchards and plantations, arriving about the beginning of May. *O. galbula* may also occur, but was not procured. The latter is the only Oriole found in Persia, and a straggler has been shot in Sind. It may be inferred that *O. kundoo* winters in India invariably, and that Arabia is the easternmost winter-

quarters of *O. galbula*, the two probably meeting in summer in Western Afghanistan or Eastern Persia.

80. *PRATINCOLA CAPRATA* (Linn.).

Common all over the region, particularly in winter, a few remaining about Kandahar and Quetta to breed.

81. *PRATINCOLA MAURA* (Pallas).

Not so common as the last, but fairly numerous in the winter. Lieut. Wardlaw-Ramsay found it breeding in Northern Afghanistan.

82. *PRATINCOLA MACRORHYNCHA* (Stol.).

Colonel Swinhoe obtained two specimens. I did not observe it.

83. *SAXICOLA OPISTHOLEUCA*, Strickland.

Rare. I only obtained two specimens, in February and March 1879, at Kandahar. Swinhoe did not procure it.

84. *SAXICOLA PICATA*, Blyth.

Arrives from India in very early spring and breeds at once. I procured it in Kandahar on the 3rd of February.

85. *SAXICOLA ALBONIGRA*, Hume.

A permanent resident throughout the provinces. Swinhoe observes that it leaves Kandahar in late winter, but I got an adult male and a nestling in May.

86. *SAXICOLA FINSCHI*, Heugl.

Rather uncommon. Dr. Duke obtained two specimens at Quetta, one in February; Col. Swinhoe got one in the same month at Kandahar, and I shot a single specimen in Pishin on the 26th September. It is therefore probably a winter straggler from Central Asia.

87. *SAXICOLA ISABELLINA*, Rüpp.

A permanent resident, but locally distributed. Mr. Barnes found it common and breeding about the Khwaja Amran.

88. *SAXICOLA CHRYSOPYGIA*, De Fil.

A winter visitant all over the province, but not common.

89. *SAXICOLA DESERTI*, Rüpp.

Common in suitable localities.

90. *SAXICOLA MONTANA*, Gould.

In the month of September 1881 I shot on the Khwaja Amran three male Stonechats, which puzzled me, and I took them to England for identification. Mr. Seebohm kindly examined them for me, and pronounced two of them to be representatives of the extreme forms of *S. deserti* and *S. montana*, the third being intermediate between them. The *S. montana* form appears rare. Col. Swinhoe got one specimen at Kandahar, but Mr. Barnes did not observe it at Chaman.

91. *SAXICOLA MORIO* (Hempr. & Ehr.).

Abundant on its way to and from its summer-quarters. I find that I noted its occurrence in large numbers in Pishin towards the end of September, and that I shot several specimens in Kandahar from March 2nd onwards. Col. Swinhoe is therefore mistaken in supposing it is a summer visitant only, as he is also in giving *S. melanoleuca* on my authority (Ibis, 1888, p. 107). In December 1878 I shot a Stonechat in Quetta, which Mr. Hume doubtfully refers to *S. stapazina*; but as this species has not before been obtained further east than Shiraz, 15° to the west, where I got three specimens, I do not like to include it in the present list. Mr. Barnes notes ('Stray Feathers,' ix. p. 454) that *S. monacha* is very rare at Chaman. It is certainly found in Sind and on the Mekran coast, but has not been obtained by any other observer in our province, and I cannot help thinking that he must have mistaken *S. morio* for *S. monacha*. The former, which he does not mention, is certainly found about Chaman in spring and autumn.

92. *AEDON FAMILIARIS* (Ménétries).

Tolerably common in summer in suitable localities.

93. *RUTICILLA RUFIVENTRIS* (Vieill.).94. *RUTICILLA ERYTHRONOTA* (Eversm.).

These, the only two Redstarts obtained, are both very numerous in winter, the latter particularly so.

95. *CYANECULA SUECICA* (Linn.).

Common all over the province in summer.

96. *ACROCEPHALUS STENTOREUS* (Hempr. & Ehr.).

Obtained by Dr. Duke at Nal and by myself at Kandahar.
Not very common.

97. *ACROCEPHALUS DUMETORUM*, Blyth.

Obtained by Dr. Duke at Nal.

98. *ACROCEPHALUS AGRICOLA* (Jerd.).

A specimen shot at Chaman in April is referred by Mr. Hume to this species.

99. *LUSCINIOLA MELANOPOGON* (Temm.).

I obtained two specimens at Kandahar.

100. *CETTIA SERICEA* (Temm.).

Col. Swinhoe obtained a single specimen at Kandahar.
I did not observe it.

101. *SCOTOCERCA INQUIETA* (Rüpp.).

Obtained by Dr. Duke in the highlands south of Kelát, and
by myself in Kandahar.

102. *HYPOLAIS RAMA* (Sykes).

Not uncommon all over the province.

103. *HYPOLAIS CALIGATA* (Licht.).

Common in suitable localities.

104. *HYPOLAIS LANGUIDA* (Hempr. & Ehr.).

Col. Swinhoe obtained a single specimen at Chaman.

105. *PHYLLOSCOPUS TRISTIS*, Blyth.

Very common all over the province.

106. *PHYLLOSCOPUS NEGLECTUS*, Hume.

I got a specimen at Kandahar and another at Quetta. The
former was identified by Mr. Hume and the latter by Mr.
Blanford.

107. *PHYLLOSCOPUS NITIDUS*, Blyth.

A single specimen from Kandahar, identified by Mr.
Hume.

108. *SYLVIA JERDONI*, Blyth.

Common. Breeds in the gardens about Quetta, and in the
Ziarat forest.

109. *SYLVIA AFFINIS*, Blyth.

Dr. Duke obtained a specimen, and I got a second, at Kandahar, noted by Mr. Hume as belonging to this species.

110. *SYLVIA MINUSCULA*, Hume.

Col. Swinhoe obtained a single specimen in Kandahar.

111. *MOTACILLA PERSONATA*, Gould.112. *MOTACILLA ALBA*, Linn.

Both common in winter.

113. *CALOBATES MELANOPE* (Pall.).

A rare winter visitant.

114. *BUDYTES RAYI*, Bp.

Neither Col. Swinhoe nor I obtained this Wagtail in Kandahar, but I shot one on the road between Pishin and the city in April 1881, which I gave to Col. Swinhoe, and my identification seems to have been confirmed in England (see *Ibis*, 1888, p. 91). I have since seen what I believe to be *B. rayi* at an elevation of 8000 feet, in September. It is common in Yarkand.

115. *BUDYTES CINEREOCAPILLA* (Savi).

Common on its way to and from its breeding-places.

116. *BUDYTES MELANOCEPHALA* (Licht.).

Very common in spring for a short time, a few remaining about Kandahar to breed.

117. *BUDYTES FLAVA* (Linn.).

I obtained it only about Kandahar, but Dr. Duke shot a young bird at Mastung in June.

118. *BUDYTES CALCARATA* (Hodgs.).

Not so common as the last two. A few remain at Kandahar to breed.

119. *BUDYTES CITREOLA* (Pall.).

Common in spring.

120. *ANTHUS TRIVIALIS* (Linn.).

Col. Swinhoe obtained a single specimen at Kandahar, where, he says, it is common in winter. I did not obtain it.

121. *ANTHUS RUFULUS* (Vieill.).

A summer visitor. I got it at Kandahar in June, and Col. Swinhoe on the Pishin road at the end of April.

122. *ANTHUS CAMPESTRIS* (Linn.).

Common in winter.

123. *ANTHUS SORDIDUS* (Rüpp.).

A summer visitor. I obtained it at Kandahar in June, and Dr. Duke near Kelât in May and June.

124. *ANTHUS SPINOLETTA* (Linn.).

Two specimens of a Pipit from Quetta were identified by Mr. Blanford as *A. spinoletta*.

125. *ANTHUS BLAKISTONI*, Swinh.

Very common during the winter.

126. *PARUS CINEREUS*, Vieill.

Very common in gardens and on the hills wherever there are trees.

127. *PARUS BOKHARENSIS*.

A specimen from the Khojak taken to England was identified as *P. bokharensis* by Mr. Seebohm, who remarked that he has no doubt that it interbreeds with *P. cinereus*.

128. *ACCENTOR ATROGULARIS*, Brandt.

A single specimen procured at Quetta by Dr. Duke in November.

129. *CORVUS CORAX*, Linn.

Until I had obtained a large series of Ravens of all sizes, I was under the impression that Mr. Hume's *C. lawrencii* was a good species, but when I found them with wings varying from 16 to $18\frac{3}{4}$ inches, my faith was shaken. I took four specimens to England, where Mr. Seebohm examined them. All were males, and the length of wing was in two specimens $17\frac{1}{2}$, in one $18\frac{1}{2}$, and in the fourth $18\frac{3}{4}$. At one time I thought it probable that the larger birds were winter visitors from colder climates; but this is disproved by the fact of the first three of the four specimens above noted having been killed in July and August.

130. *CORVUS UMBRINUS*, Hedenb.

It requires sharper eyes than mine to tell this bird and the last apart without a nearer approach than they will usually allow, and it is consequently not very easy to get an accurate notion of their migrations. At first I was under the impression that *C. umbrinus* only remained in the vicinity of Kandahar and Quetta during the summer, and that all birds of that species left in the winter for warmer climes; but this is at best only partially true. It is certain, however, that *C. umbrinus* is far commoner in summer than in winter, the reverse being the case with *C. corax*. In 1879 I failed to obtain *C. corax* in Kandahar during the summer, and did not see it till September, when I found numbers travelling down the Tarnak valley. In October *C. umbrinus* was not to be found about Kelât-i-Ghilzai, and on my return to Kandahar I found *C. corax* common there. In 1880, the Maiwand year, I had too much to do to spend time in shooting crows; but in 1881 I sacrificed a great many in Quetta during the summer without getting more than one *C. corax*, which, however, was breeding in numbers about the Khojak pass (7200 feet). Last year I had better opportunities of observation, and found both birds in summer and winter alike, *C. umbrinus* being more numerous in summer about the station of Quetta and *C. corax* in winter. About the mountains *C. corax* is always more common. Except when breeding, both kinds are as sociable as Rooks. In a small orchard of fruit-trees at Quetta thousands roost every night in summer and autumn, the trees being black with them. This colony disappears in the winter. Indeed, I doubt if any individual Raven is a permanent inhabitant. All that breed in our province probably migrate in the cold weather, *C. corax* to Sind and *C. umbrinus*, for the most part, to the Mekran coast and Arabia.

131. *CORVUS CORNIX*, Linn.

The Hooded Crow is a rare winter visitant to Kandahar, but does not come further south.

132. *CORVUS FRUGILEGUS*, Linn.

Two or three large flocks extend their winter migrations

as far as Kandahar, where they arrive in January, remaining as late as the beginning of April.

133. *CORVUS MONEDULA*, Linn.

The Jackdaws accompany the Rooks, and appear to remain constantly in their company.

134. *PICA RUSTICA* (Scop.).

Common in gardens, groves, and wooded hills everywhere from Kelát northwards. It is not now met with, however, in the many suitable localities in and about Quetta. Probably it has found itself too tempting a mark for the sportsmen in the British regiments, and has migrated to quieter neighbourhoods.

135. *FREGILUS GRACULUS* (Linn.).

Common throughout the winter all over the plateau, but does not, I think, breed in our region.

136. *STURNUS VULGARIS*, Linn.

Common in winter, but not so numerous as one or both of the next species.

137. *STURNUS PURPURASCENS*, Gould.

Colonel Swinhoe named the two specimens of the Purple Starling he took to England from Kandahar *S. purpurascens*. Mr. Hume, on the other hand, ascribed all the seven skins I sent him to *S. nobilior*. Mr. Sharpe now tells me that he has found three species of Starling among the Kandahar birds in the Hume Collection, probably Hume's *S. nobilior*, and perhaps *S. purpurascens*, in addition to *S. vulgaris*. He will, no doubt, be kind enough to add a note to this paper, giving the correct names of the species.

138. *PASTOR ROSEUS*, Linn.

It may be remembered that Mr. Blanford ('Eastern Persia,' ii. p. 267) calls attention to the extraordinary fact that the Rose-coloured Pastor, which spends the winter in India and breeds in Asia Minor, has not been observed in Central or Southern Persia. Its occurrence in immense flocks in spring and autumn on migration throughout Southern Afghanistan indicates that its path lies across Afghanistan to the

south-east corner of the Caspian, whence it probably follows the Elburz and Taurus ranges to its nesting-homes in the Caucasus, Azarbaijan, and Asia Minor.

In our province the first flocks begin to arrive from India early in April, and the last do not leave it till the end of May. Early in August at latest the return swarms begin to make their appearance, and have not entirely passed till the beginning of October. Its reason for taking this somewhat round-about route is, no doubt, to avoid the wide desert-tracts and low-lying plains which a direct flight would oblige it to cross. By keeping to the highlands of Northern Baluchistan, Southern and Western Afghanistan, and Persian Khorasan, it is able to find a cool climate and spring crops in the fields all the way.

139. *AMADINA MALABARICA* (Linn.).

Occasionally seen about Quetta and to the south, but not observed in Kandahar.

140. *PASSER DOMESTICUS* (Linn.).

The House-Sparrow breeds all over our region, but disappears almost, if not entirely, during the winter, though not so early as August, which Col. Swinhoe gives as the date of its departure. Throughout September it gathers in large flocks before migrating, probably to devastate the millet-fields of Southern Baluchistan and Sind.

141. *PASSER HISPANIOLENSIS* (Temm.).

Common at Kandahar in summer.

142. *PASSER MONTANUS* (Linn.).

The common resident Sparrow of our region.

143. *PETRONIA STULTA* (Gmel.).

Col. Swinhoe obtained three specimens in Kandahar. I did not procure it there or in Quetta.

144. *GYMNORIS FLAVICOLLIS* (Frankl.).

I got a specimen in Kandahar in May, the only one obtained, though this bird extends as far west as Shiraz.

145. *EMBERIZA LEUCOCEPHALA* (S. G. Gmelin).

Two specimens obtained by Colonel Swinhoe in January near Kandahar, and one by Dr. Duke in February at Quetta.

146. *EMBERIZA BUCHANANI*, Blyth.

Very common in spring.

147. *EMBERIZA STEWARTI*, Blyth.

Colonel Swinhoe observed one specimen at Chaman in April, and I got another at Quetta in December.

148. *EMBERIZA STRIOLATA*, Licht.

Not obtained in Kandahar. Dr. Duke found it common south of Kelât in May, and I obtained a specimen at Quetta in December.

149. *EMBERIZA SCHÆNICLUS*, Linn.

Colonel Swinhoe obtained a single specimen at Kandahar in winter.

150. *EUSPIZA MELANOCEPHALA* (Scop.).

The Black-headed Bunting is very numerous in the country south of Kelât in April, and Blanford and I found swarms in Western Baluchistan about the same time. Further north it is at least very rare. I did not observe it myself at all, but Colonel Swinhoe has noted a specimen from Melkerez, some forty miles south of Kandahar. The swarms that winter in India evidently pass through Baluchistan to Persia, where they breed, only a few stragglers finding their way to Afghanistan.

151. *EUSPIZA LUTEOLA* (Sparrm.).

This Bunting, on the other hand, breeds in the highlands of our province, and no doubt in Central Afghanistan also. It is numerous about Kandahar in April, and I found it in June among the cornfields of the valleys above 6000 feet to the east of Quetta.

152. *ERYTHROSPIZA GITHAGINEA* (Licht.).

Colonel Swinhoe records a single specimen from Kandahar, killed on the 3rd February.

153. *ERYTHROSPIZA MONGOLICA* (Swinhoe).

Two specimens sent to Mr. Hume from Chaman, shot in April 1880, were referred to this species.

154. *ERYTHROSPIZA OBSOLETA* (Licht.).

Kandahar appears to be the south-eastern limit of this bird. It is common in winter, and is often netted and brought in for sale. Col. Swinhoe (*Ibis*, 1882, p. 114) says it is found throughout the year, but, as he notes later on that he did not observe it after the 1st April, this was probably a slip of the pen. However, I found it during summer in Persia in localities nearly as hot as Kandahar, though somewhat higher in elevation, and it may breed there.

155. *CARPODACUS ERYTHRINUS* (Pall.).

Passing through Kandahar and Quetta, on its way to and from its breeding-place, probably in the high mountains of Central Afghanistan.

156. *CARDUELIS CANICEPS* (Vig.).

Very common in Kandahar in winter, less so in Quetta. It is not found in Persia, where it is replaced by *C. elegans*, so that it may be supposed to breed in the mountains of Northern Afghanistan.

157. *METOPONIA PUSILLA* (Pall.).

A single caged specimen was obtained by Colonel Swinhoe, who was informed by the bird-catchers that "it arrives in flocks in the middle of April, and leaves again in September." It may pass through Kandahar at these times, but can hardly remain there during the summer, as it is known to breed in the high mountains.

158. *FRINGILLA MONTIFRINGILLA*, Linn.

I shot a specimen in winter in a garden at Kandahar, not, as Colonel Swinhoe notes, towards the Helmund.

159. *ANMOMANES DESERTI* (Licht.).

Common throughout our region.

160. *CALANDRELLA BRACHYDACTYLA* (Leisl.).

The Short-toed Lark passes through Southern Afghanistan in immense flocks in spring and autumn, but does not, I believe, breed anywhere within our limits.

161. *MELANOCORYPHA BIMACULATA* (Ménétries).

A winter visitant as far south as Kelát, where it was obtained in March by Dr. Duke.

162. *OTOCORYS PENICILLATA*, Gould.

A few are seen about Kandahar in the winter, but it is not common.

163. *ALAUDA ARVENSIS* (sive *dulcivox*?).

Very common in the winter all over our province, but not observed in summer.

164. *ALAUDA GALGULA* (Frankl.).

A permanent resident, and not, as Colonel Swinhoe states, a summer visitor only. A male shot by me at Quetta in December is in the Hume Collection. It is the common Sky Lark of the country.

165. *GALERIDA CRISTATA* (Linn.).

Found everywhere from the plains of India to 6000 feet or thereabouts, but not so numerous as it is further west.

I believed that I saw the large Desert Lark (*Certhilauda desertorum*) on one occasion on the borders of the desert near Kandahar, and informed Col. Swinhoe, who inserted it, on my authority, in his list. But I am now inclined to doubt its occurrence north of the watershed of the Indian Ocean, without further testimony, and have therefore omitted it. I should add that I have since had better opportunities of observing the fauna of the Helmund desert, and have not seen it.

166. *COLUMBA CASIOTIS* (Bp.).

Very numerous in suitable localities, such as the large gardens about Kandahar and in the wooded hills west of Quetta. It breeds in large numbers in the juniper-forests of Ziarat, 7000–9000 feet, migrating to the lower hills in autumn.

167. *COLUMBA INTERMEDIA*, Strickl.

168. *COLUMBA LIVIA*, Linn.

In the immediate neighbourhood of Kandahar these two species have interbred to such an extent that, as Colonel

Swinhoe remarks, it is not uncommon to find both species with intermediate examples in a single flock. But pigeons found in the vicinity of Asiatic cities probably are always descended more or less from domestic varieties. Afghans and Persians are great pigeon-fanciers, and keep swarms of pigeons for amusement or for the sake of the dung, the most valuable manure in the east. Away from cities white-rumped birds are much rarer, and occasionally, at least, found in separate flocks. They appeared to me and to other observers persistently smaller than the grey-rumped pigeons, and to be more decided rock-lovers. But the common wild pigeon of the country is certainly intermediate, and it is possible that all the white-rumped birds are descended from a domestic cross.

169. *TURTUR COMMUNIS*, Selby.

Rare. Col. Swinhoe obtained one specimen at Kandahar.

170. *TURTUR CAMBAYENSIS* (Gmel.).

Common throughout our province.

171. *TURTUR RISORIUS* (Linn.).

Common above the passes and about Kandahar.

172. *PTEROCLES ARENARIUS* (Linn.).

A few remain to breed, but the majority of the immense flocks seen in winter move northwards in the spring.

173. *PTEROCLES ALCHATA* (Linn.).

Not so generally dispersed as the last species. It seems a more strictly desert form than *P. arenarius*, which rather affects cultivated ground. I found *P. alchata* in July between the Helmund and Kandahar, so that it must breed there.

174. *PTEROCLES CORONATUS*, Licht.

This is the only small Sand Grouse of Southern Afghanistan, and is very generally diffused, though nowhere numerous. It is commonly seen in small parties of half a dozen or so, and is more active on the ground than other Sand Grouse, running about and picking up seeds like a Partridge, whereas *P. alchata* and *P. arenarius* are leisurely and

staid in their gait. It breeds in the Helmund desert, for I found it common between Kandahar and the river in July.

175. *FRANCOLINUS VULGARIS*, Steph.

Found in suitable localities throughout the province up to 4000 feet. Very numerous in the tamarisk-jungle of the Helmund and among the dwarf palms of Thal Chotiali.

176. *CACCABIS CHUKAR* (J. E. Gray).

The common Partridge of the country at all elevations wherever there is a sufficient extent of hilly ground. Bags of eight or ten brace can still be made within a ride of Quetta.

177. *AMMOPERDIX BONHAMI* (G. R. Gray).

Common everywhere in broken ground near hills at all elevations.

178. *COTURNIX COMMUNIS*, Bonn.

Very numerous in the cornfields of Kandahar in April and May, and breeds in small numbers in similar localities throughout the country.

179. *OTIS TETRAX*, Linn.

I saw several specimens shot by sportsmen about Kandahar, and once put up one myself when riding across country twelve miles south of the city in April.

180. *HOUBARA MACQUEENI* (J. E. Gray).

Common only on the edges of the desert. It breeds further north.

181. *CURSORIUS GALLICUS* (Gmel.).

Numerous in Pishin in autumn. I have not noticed it elsewhere.

182. *GLAREOLA PRATINCOLA* (Linn.).

Rare. Col. Swinhoe obtained a single specimen at Bibi Nani, in the Bolan, outside our province; but I obtained one at Kandahar on the 23rd April, 1879.

183. *CHARADRIUS FULVUS*, Gm.

I shot a Golden Plover near Kelát-i-Ghilzai in October 1879 which had not white axillaries, and which therefore

belonged, I believe, to the Asiatic race. I was unable to preserve it.

184. *ÆGIALITIS CANTIANA* (Lath.).

185. *ÆGIALITIS CUNONICA* (Gmel.).

Both common in the cold weather above the passes. The last remains in Kandahar till April.

186. *VANELLUS VULGARIS*, Bechst.

Common in winter.

187. *CHETTUSIA LEUCURA* (Licht.).

Also common in winter.

188. *LOBIVANELLUS INDICUS* (Bodd.).

Common everywhere.

189. *SCOLOPAX RUSTICULA*, Linn.

Fairly plentiful in suitable localities from October to March, most numerous, perhaps, in the extensive orchards and vineyards on the Arghandab river above Kandahar. Here I have known twenty killed by two guns in a couple of days. In spite of the small amount of cover, a few are shot every winter in Quetta. About the end of October 1887 I got one in a small patch of wood in the Residency garden.

190. *GALLINAGO SOLITARIA* (Hodgs.).

A single specimen was procured by Dr. Duke near Kelât in December 1877. It has not since been recorded.

191. *GALLINAGO CÆLESTIS*, Frenz.

Snipe are very plentiful in Southern Afghanistan in suitable localities. A large marsh just outside the south gate of Kandahar swarmed with them throughout the winter, but better bags were made along the watercourses and in inundated fields. They arrive early in September, and the stragglers remain until well into April.

192. *LIMNOCRYPTES GALLINULA* (Linn.).

Not very common, except in large marshes. They arrive later and leave earlier than the full Snipe. My specimen, in the Hume Collection, was shot on the 14th February.

193. *LIMOSA ÆGOCEPHALA* (Linn.).

Colonel Swinhoe obtained a specimen near Kandahar on the 22nd March, 1881. I did not observe it.

194. *MACHETES PUGNAX* (Linn.).

Numerous in suitable localities in spring.

195. *TRINGA MINUTA* (Leisl.).

Common in suitable localities during summer.

196. *PHALAROPUS HYPERBOREUS* (Linn.).

Mr. Barnes obtained a specimen at Chaman in 1880 ; and I shot others in the same place in October 1881. They were swimming in a small artificial pool used for watering cattle. I have seen them in similar places at great elevation in Persia.

197. *TOTANUS GLAREOLA* (Gm.).

Common in summer.

198. *TOTANUS CANESCENS* (Gm.).

Not uncommon in winter.

199. *TOTANUS CALIDRIS* (Linn.).

Common in winter up to the middle of April.

200. *HELODROMAS OCHROPUS* (Linn.).

Common in winter. A specimen was procured at Nal (4000 feet) in May.

201. *TRINGOIDES HYPOLEUCUS* (Linn.).

Common in summer.

202. *HIMANTOPUS CANDIDUS* (Bonn.).

Common in early winter and spring. My Kandahar specimens were shot on the 22nd February and 9th April.

203. *PORPHYRIO POLIOCEPHALUS* (Lath.).

Rare. Two or three are killed every autumn in a chain of marshy pools at Quetta, far too small apparently to be the permanent residence of Purple Coots. Colonel Swinhoe got one specimen at Kandahar, where I did not see it.

204. *FULICA ATRA*, Linn.

Very common at Kandahar in winter. The moats of the old citadal are their favourite haunt.

205. *GALLINULA CHLOROPUS* (Linn.).

Rare. I obtained one specimen at Kandahar in April 1879. Colonel Swinhoe does not record it.

206. *PORZANA BAILLONI* (Vieill.).207. *PORZANA PARVA* (Scop.).

Like Colonel Swinhoe, I found both these Rails numerous about the Kandahar marsh towards the end of winter*, and I got them again at Quetta in the autumn of 1882.

208. *CICONIA ALBA*, Bechst.

Noticed occasionally, both at Kandahar and in Pishin, in spring and autumn.

209. *ARDEA CINEREA*, Linn.

Common.

210. *ARDEA ALBA*, Linn.

Not uncommon about Kandahar.

211. *ARDEA BUBULCUS*, Aud.

I obtained a single specimen at Quetta in May 1887, but have never seen it before or since.

212. *ARDETTA MINUTA* (Linn.).

Not uncommon at Kandahar in summer. I obtained specimens in April, May, and June.

213. *BOTAURUS STELLARIS* (Linn.).

Several Bitterns were shot each winter of our stay in Kandahar.

214. *NYCTICORAX GRISEUS* (Linn.).

There is a small colony of Night Herons in a garden near Kandahar.

215. *PLATALEA LEUCORODIA*, Linn.

I only once saw a Spoonbill, near Kelât-i-Ghilzai, but I have heard of others being shot.

216. *PLEGADIS FALCINELLUS* (Linn.).

A solitary bird of this species found here and there about the country.

* He says *July*, but obviously means *February* (*Ibis*, 1882, p. 123).

217. PHENICOPTERUS ANTIQUORUM, Temm.

The occurrence of this bird at Harnai, the extreme limit of our province, has been recently recorded in an Indian sporting newspaper, 'The Asian.'

218. ANSER, sp. inc.

As noticed by Col. Swinhoe (Ibis, 1882, p. 123), Wild Geese were frequently observed about Kandahar. They were not *Anser indicus*, but which of the European species they belonged to I cannot say.

219. CASARCA RUTILA (Pall.).

Common in winter.

220. SPATULA CLYPEATA (Linn.).

Not so common as many other Wild Ducks.

221. ANAS BOSCHAS, Linn.

Very numerous, both on the marshes and in the rivers, coming in about the end of October or early in November. I have seen a belated couple or two on the Arghandab as late as the first week in June.

222. CHAULELASMUS STREPERUS (Linn.).

Common on the marshes throughout winter, but rare on the rivers.

223. MARMARONETTA ANGUSTIROSTRIS (Ménétr.).

Not very uncommon. Most large bags of Duck and Teal contained one or two Marbled Ducks.

224. DAFILA ACUTA (Linn.).

I found large flocks of Pintails in the inundated fields bordering the river near Kelât-i-Ghilzai in October. Later on they appeared to be more numerous than any other kind of Duck in the Kandahar marsh.

225. MARECA PENELOPE (Linn.).

Wigeon are not common in S. Afghanistan.

226. ERISMATURA LEUCOCEPHALA (Scop.).

As has been recorded by Mr. Hume in 'Stray Feathers' (vol. viii. p. 456), I shot a pair of these singular Ducks near

Kelát-i-Ghilzai on the 20th October, 1879. I did not meet with this species again.

227. *QUERQUEDULA CRECCA* (Linn.).

The common Teal is found everywhere in suitable localities.

228. *QUERQUEDULA CIRCIA* (Linn.).

Rare.

229. *FULIGULA RUFINA* (Pall.).

Not uncommon.

230. *FULIGULA FERINA* (Linn.).

Not so frequently met with as the last.

231. *FULIGULA CRISTATA* (Linn.).

Not so common as the last.

232. *NYROCA FERRUGINEA* (Gm.).

Very common.

233. *MERGUS ALBELLUS*, Linn.

Three specimens shot at Kandahar were given to Colonel Swinhoe. I did not procure it.

234. *TACHYBAPTES MINOR* (Gmel.).

Common in spring and autumn in suitable localities.

235. *LARUS RIDIBUNDUS*, Linn.

Very common in winter.

236. *STERNA MELANOGASTRA*, Temm.

In the autumn of 1881 I shot a Tern at Quetta, which I believe belonged to this species. It is in the Hume Collection.

237. *PHALACROCORAX CARBO* (Linn.).

Occasionally seen on the Arghandab river, but not common.